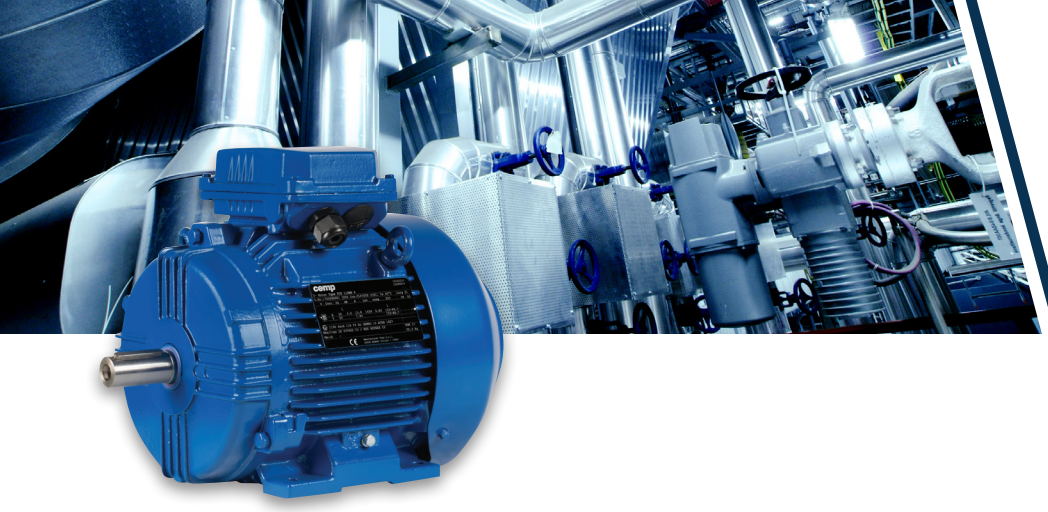
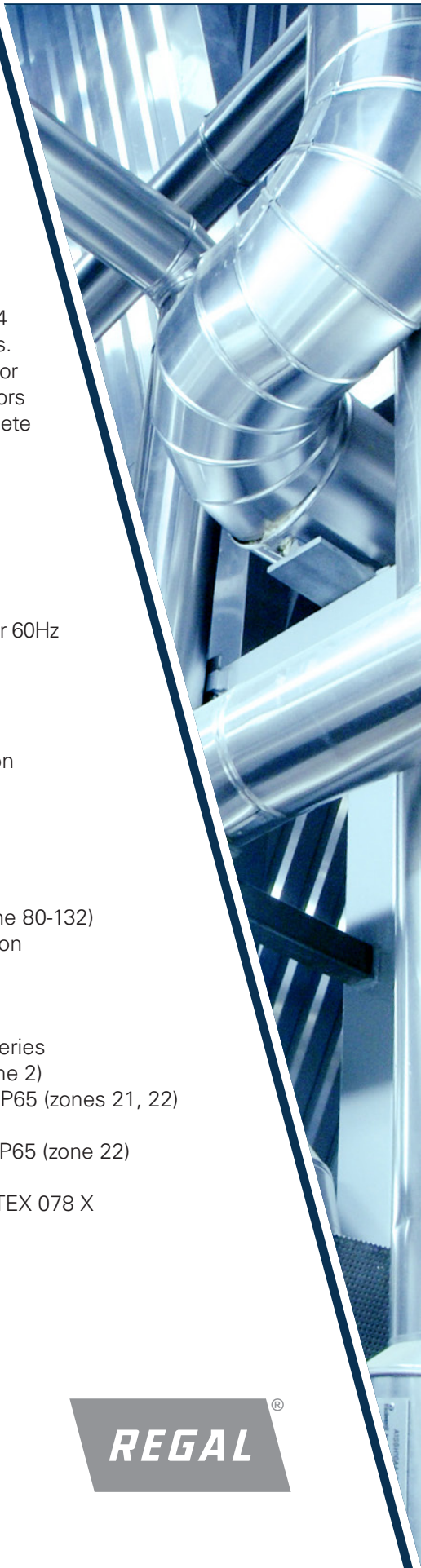


cemp®
Flameproof
Motors



TerraMAX® TC SERIES MOTORS

IE3 / IE4 MOTORS MADE IN ITALY

TC series motors, built on the global low voltage TerraMAX motor platform, are IE3 & IE4 efficiency totally enclosed fan cooled motors suitable for general industry applications. The TC series motors inherit the premium features of state of the art TerraMAX motor platform, while delivering energy savings. The rugged construction of the TC series motors meets the industry requirement for all tough and demanding applications. The complete range is manufactured in our Italian plant in Senago, Milan, Italy.

TCI SPECIFICATIONS

Output:	0.75kW to 375kW (1HP to 500HP)
Pole:	2 to 8 pole
Frame:	IEC 80 – 355
Standards:	According to IEC 60034
Power supply:	Available for voltages between 200V to 1000V and frequency 50 or 60Hz
Ambient:	-20°C / +40°C (up to -60°C / +80°C on request)
Construction:	Cast iron with integrally cast feet
Drive Suitability:	Suitable for variable torque duty (10:1)
Terminal box:	Cast iron with special captive screws and metric cable entry
Connection:	Frame 80-112 Star connection, frame 132-355 Delta connection
Insulation:	Class F with class B temperature rise
Thermistors:	PTC included as standard
Protection:	IP55 (up to IP66 on request)
Bearings:	Shielded bearings for frame 80-180
Fan:	Bi-directional fan
Mounting:	All standard mountings B3, B5, B35, V1 (B14 and B34 for frame 80-132)
Certification:	Available efficiency certification GMEE®* and EAC®* Declaration
Paint:	RAL 5010 standard

TCN Series (ATEX®* & IECEx®*)

Same specifications as the TCI series
II3G Ex ec IIB / IIC T3Gc
Suitable for Zone 2
Certificate Number: TÜV IT 20 ATEX 078 X

TCT Series (ATEX & IECEx)

Same specifications as the TCI series
II2D Ex tb / Ex tc IIIB / IIIC T 150°C - 85°C
Suitable for Zone 21 & 22
Certificate Number: TÜV IT 20 ATEX 078 X

TCE Series (ATEX & IECEx)

Same specifications as the TCI series
II2G, Ex eb, IIC, T3Gb
Certificate Number ATEX: DEMKO 18 ATEX 2068X
Certificate Number IECEx: IECEx UL 17.0104X

TCNT Series (ATEX & IECEx)

Same specifications as the TCI series
II 3G, Ex ec, IIB or IIC, T3 Gc (zone 2)
II 2D, Ex tb, IIIB or IIIC, T135°C, IP65 (zones 21, 22)
(T120°C available on demand)
II 3D, Ex tc, IIIB or IIIC, T135°C, IP65 (zone 22)
(T120°C available on demand)
Certificate Number: TÜV IT 20 ATEX 078 X

REGAL®

PERFORMANCE DATA

Motor Frame	Pn [kW]	n [1/min]	In (A)	Efficiency [%]	Cos. Φ	Mn [Nm]	Ia/In	Ma/ Mn	Mm/ Mn	Noise level [dB(A)]		Moment of inertia [kgm2]	Weight (kg)
										Lw	Lp		
2 POLE MOTORS													
TC.. 80MA 2	0.75	2865	1.59	81.4	0.83	2.50	7.0	2.7	3.4	73	65	0.0010	18.7
TC.. 80MB 2	1.1	2861	2.31	83.0	0.81	3.67	7.6	3.5	3.5	73	65	0.0012	19.8
TC.. 90S 2	1.5	2870	3.04	84.8	0.84	4.99	7.8	2.0	3.7	76	68	0.0017	25.6
TC.. 90L 2	2.2	2866	4.33	86.2	0.86	7.33	8.4	2.9	3.6	76	68	0.0021	28.7
TC.. 100LA 2	3	2879	5.73	87.2	0.89	9.95	8.4	3.6	3.9	78	70	0.0031	39.3
TC.. 112M 2	4	2903	7.27	88.1	0.89	13.16	8.4	2.1	3.5	81	73	0.0081	44.7
TC.. 132SA 2	5.5	2924	10.2	89.2	0.86	17.96	8.1	2.4	3.5	84	75	0.0142	70.9
TC.. 132SB 2	7.5	2920	13.5	90.1	0.88	24.53	6.7	2.1	3.5	84	75	0.0169	77.3
TC.. 160MB 2	11	2951	19.9	91.2	0.88	35.60	7.9	2.3	3.6	84	76	0.0553	135.0
TC.. 160MC 2	15	2944	26.4	91.9	0.89	48.65	8.2	2.2	3.5	84	76	0.0689	150.0
TC.. 160LA 2	18.5	2944	32.3	92.4	0.90	60.01	8.2	2.5	3.5	84	76	0.0808	163.0
TC.. 180M 2	22	2963	38.7	92.7	0.88	70.90	7.8	2.1	3.4	81	72	0.1265	211.0
TC.. 200LA 2	30	2973	54.3	93.3	0.85	96.36	7.5	2.1	3.3	89	79	0.2245	272.0
TC.. 200LB 2	37	2973	65.5	93.7	0.87	118.8	7.4	2.1	3.1	89	79	0.2541	291.0
TC.. 225MA 2	45	2966	78.7	94.4	0.87	144.9	6.9	2.2	3.1	89	79	0.3641	379.0
TC.. 250MA 2	55	2981	93.3	94.3	0.90	176.2	7.5	1.8	3.2	87	77	0.6229	492.0
TC.. 280S 2	75	2982	126.5	94.8	0.90	240.2	7.5	1.8	3.2	90	79	1.0493	698.0
TC.. 280MA 2	90	2981	150.9	95.0	0.90	288.3	7.3	1.8	3.0	90	79	1.1238	718.0
TC.. 315S 2	110	2983	186.4	95.3	0.89	352.1	6.9	1.7	3.0	95	84	1.9059	963.0
TC.. 315MB 2	132	2983	223.7	95.5	0.89	422.6	7.1	1.8	3.1	95	84	2.0265	1007.0
TC.. 315LA 2	160	2983	269.9	95.7	0.89	512.2	7.1	1.8	3.0	95	84	2.2091	1065.0
TC.. 315LC 2	200	2980	338.6	95.8	0.89	640.9	7.1	1.9	3.1	95	84	2.4519	1180.0
TC.. 355M 2	250	2983	425.8	95.8	0.89	800.4	6.8	2.0	2.8	96	85	3.8130	1612.0
TC.. 355LB 2	315	2983	531.9	95.8	0.89	1008.5	6.9	2.1	2.8	96	85	4.4076	1771.0
TC.. 355LC 2	355	2986	601.7	95.8	0.89	1135.4	8.2	2.2	3.2	96	85	4.4075	2002.0
TC.. 355LD 2	375	2986	626.8	96.0	0.90	1199.4	7.9	2.2	3.1	96	85	4.4075	2008.0
4 POLE MOTORS													
TC.. 80MB 4	0.75	1428	1.70	82.9	0.77	5.02	6.3	2.8	2.8	62	56	0.0018	22.5
TC.. 90S 4	1.1	1444	2.42	84.5	0.78	7.27	7.2	3.0	3.4	67	61	0.0031	27.3
TC.. 90L 4	1.5	1441	3.23	85.6	0.78	9.94	7.4	3.2	3.5	67	61	0.0037	29.8
TC.. 100LA 4	2.2	1457	4.51	86.9	0.81	14.42	8.0	2.7	3.2	69	62	0.0096	39.7
TC.. 100LB 4	3	1455	5.87	87.8	0.83	19.69	8.2	2.9	3.3	69	62	0.0109	43.9
TC.. 112MB 4	4	1451	7.66	88.7	0.82	26.32	8.3	2.7	3.1	70	62	0.0174	52.3
TC.. 132S 4	5.5	1463	10.8	89.6	0.82	35.90	6.9	2.0	2.8	73	65	0.0363	80.9
TC.. 132M 4	7.5	1462	14.4	90.4	0.83	48.99	6.8	2.1	2.7	73	65	0.0428	88.7
TC.. 160MB 4	11	1476	20.7	91.4	0.84	71.17	7.3	2.4	3.2	74	66	0.1080	150.0
TC.. 160LA 4	15	1472	27.8	92.1	0.85	97.31	7.5	2.5	3.2	74	66	0.1368	170.0
TC.. 180M 4	18.5	1477	35.0	92.6	0.83	119.6	7.1	2.2	3.1	76	67	0.1794	206.0
TC.. 180LA 4	22	1474	41.6	93.0	0.82	142.5	7.5	2.4	3.3	76	67	0.2041	222.0
TC.. 200LA 4	30	1482	54.2	93.6	0.85	193.3	8.0	2.2	3.1	76	67	0.4379	282.0
TC.. 225S 4	37	1483	67.2	93.9	0.85	238.2	7.1	2.2	2.8	79	68	0.5911	354.0
TC.. 225MA 4	45	1484	80.7	94.2	0.85	289.6	7.5	2.4	2.9	79	68	0.6745	389.0
TC.. 250MA 4	55	1488	97.7	94.6	0.86	353.0	7.1	2.0	3.1	83	72	1.4025	517.0
TC.. 280S 4	75	1489	130.4	95.0	0.87	481.0	6.3	2.1	2.5	87	75	2.1833	722.0
TC.. 280MA 4	90	1489	154.7	95.2	0.88	577.2	6.1	2.0	2.4	87	75	2.3954	783.0
TC.. 315S 4	110	1489	193.8	95.5	0.86	705.5	7.1	2.0	3.1	86	72	2.9187	867.0
TC.. 315MB 4	132	1489	230.9	95.6	0.86	846.5	7.3	2.1	3.1	86	72	3.3145	993.0
TC.. 315LA 4	160	1489	275.2	95.9	0.88	1026.1	7.3	2.2	3.1	86	72	3.9566	1165.0
TC.. 315LC 4	200	1489	344.8	96.0	0.87	1282.6	7.2	2.2	3.0	86	72	4.4667	1223.0
TC.. 355M 4	250	1491	428.2	96.0	0.88	1601.3	7.4	2.2	2.5	94	79	7.7973	1692.0
TC.. 355LB 4	315	1491	534.1	96.0	0.89	2017.6	7.2	1.9	2.4	94	79	9.6454	1879.0
TC.. 355LC 4	355	1491	602.7	96.0	0.89	2273.8	7.3	2.0	2.3	94	79	10.3940	1953.0
TC.. 355LD 4	375	1490	629.8	96.0	0.90	2402.8	7.0	1.9	22.0	94	79	10.0240	1972.0
TC.. 160M 6	7.5	976	14.9	89.1	0.82	73.39	5.6	1.8	2.5	75	67	0.1374	140.0

Continued on next page.

PERFORMANCE DATA

Motor Frame	Pn [kW]	n [1/min]	In (A)	Efficiency [%]	Cos. Φ	Mn [Nm]	Ia/In	Ma/ Mn	Mm/ Mn	Noise level [dB(A)]		Moment of inertia [kgm2]	Weight (kg)
										Lw	Lp		
6 POLE MOTORS													
TC.. 90S 6	0.75	961	2.02	79.1	0.65	7.47	6.0	2.9	3.4	68	60	0.0032	28.0
TC.. 90L 6	1.1	941	2.84	81.0	0.67	11.19	5.4	3.2	3.2	68	60	0.0040	29.7
TC.. 100L 6	1.5	966	3.62	82.5	0.72	14.83	6.6	2.6	3.1	70	62	0.0127	37.8
TC.. 112M 6	2.2	958	5.04	84.3	0.75	21.93	6.5	2.7	3.0	70	62	0.0148	48.2
TC.. 132SA 6	3	970	6.60	85.6	0.77	29.60	5.6	1.9	2.4	73	65	0.0358	66.3
TC.. 132MA 6	4	973	8.68	86.8	0.77	39.26	6.0	2.1	2.6	73	65	0.0450	75.9
TC.. 132MB 6	5.5	973	11.8	87.6	0.77	53.98	6.3	2.3	2.7	73	65	0.0536	86.0
TC.. 160LB 6	11	977	21.9	90.0	0.78	107.5	5.9	2.1	2.7	75	67	0.1907	163.0
TC.. 180LA 6	15	982	29.7	91.2	0.80	145.9	7.0	2.4	2.9	80	71	0.2874	222.0
TC..200LA 6	18.5	984	36.6	91.7	0.80	179.6	6.3	2.1	2.6	80	71	0.5182	262.0
TC.. 200LB 6	22	985	42.9	92.2	0.80	213.4	5.9	2.0	2.5	80	71	0.6079	275.0
TC.. 225MA 6	30	987	55.9	92.9	0.83	290.3	6.8	2.1	2.8	79	70	0.8966	374.0
TC.. 250MA 6	37	987	68.4	93.3	0.84	357.3	6.6	2.2	2.7	81	71	1.5698	490.0
TC.. 280S 6	45	989	84.1	93.7	0.82	434.5	6.0	1.7	2.5	83	72	2.1714	599.0
TC.. 280MA 6	55	989	100.9	94.1	0.84	531.1	6.0	1.8	2.4	83	72	2.3543	648.0
TC.. 315S 6	75	989	139.0	94.6	0.82	724.2	6.0	1.8	2.4	83	70	3.2215	812.0
TC.. 315MA 6	90	990	168.2	95.0	0.82	868.2	6.1	1.9	2.0	83	70	3.7478	877.0
TC.. 315LA 6	110	990	202.9	95.3	0.82	1061.1	6.4	2.0	2.5	83	70	4.5367	973.0
TC..315LC 6	132	990	244.2	95.5	0.82	1273.3	6.5	2.1	2.5	83	70	5.1945	1121.0
TC.. 355MA 6	160	992	274.5	96.0	0.88	1540.3	6.7	2.0	2.7	90	75	8.2873	1577.0
TC.. 355MB 6	200	992	362.4	95.8	0.83	1925.3	6.8	2.1	2.7	90	75	9.3705	1710.0
TC.. 355LB 6	250	992	454.0	95.8	0.83	2406.8	6.9	2.0	2.7	90	75	11.1050	1875.0

OPTIONS AVAILABLE FOR TERRAMAX® TC MOTORS SERIES

Electrical

- Special voltages up to 1000V
- Special frequencies
- Resistance Temperature Detectors PT100
- Anti-condensation heaters
- Tropicalized windings
- Electrical special designs
- Class H insulation
- Three phase 2 speeds

Accessories

- Suitable for frequency converter drives
- Forced ventilation (IC416)
- Encoders (100 – 10000 PPR)
- Bearing sensors
- Suitable for AC drives

Mechanical

- Protection IP55, IP56, IP65, IP66
- Special flanges and shafts
- Locked, roller or special bearings
- SPM probe (vibrations measurement)
- Cable gland fitted to terminal box
- Double ended shafts
- Condensation drain holes
- Vibration level grade A or B / IEC 60034-14
- Rain cap or sun shield
- Water protection disk
- Auxiliary terminal box

cemp®
Flameproof
Motors

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Version 01_112020

REGAL®